

IN THE ABSTRACT:

Please replace the Abstract with the following Abstract:

--An exposure apparatus comprising (a) irradiating means for illuminating a mask with laser light from an excimer laser and (b) a projection optical system for projecting a pattern of the mask onto a substrate with the laser light, wherein a characteristic of the projection optical system is measured by use of a harmonic of a predetermined laser, and wherein the laser light from the excimer laser has a wavelength corresponding to that of the harmonic of the predetermined laser.--

IN THE CLAIMS:

Please cancel Claims 1 through 34 without prejudice to or disclaimer of the recited subject matter.

Please add Claims 35 through 40 as follows:

--35. A method of manufacturing a projection exposure apparatus having a pulse laser, said method comprising the steps of:

measuring an optical performance of a projection optical system, by producing an interference fringe which bears information related to aberration of the projection optical system, by use of a harmonic of a laser having a coherency higher than that of a pulse laser, and then by analyzing the interference fringe, wherein a wavelength of the harmonic of the laser corresponds to a design wavelength of the projection optical system and also corresponds to a wavelength of light from the pulse laser.